



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406-1415

November 9, 2011

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer, Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION – NRC EVALUATED  
EMERGENCY PREPAREDNESS EXERCISE – INSPECTION REPORT  
NO. 05000219/2011502

Dear Mr. Pacilio:

On September 29, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the September 27, 2011, evaluated emergency preparedness exercise at your Oyster Creek Nuclear Generating Station. The enclosed inspection report documents the inspection results, which were discussed on September 29, 2011, with Mr. R. Peak, Oyster Creek Plant Manager, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

A handwritten signature in cursive script, reading "Jm Trapp", is positioned above the typed name.

James M. Trapp, Chief  
Plant Support Branch 1  
Division of Reactor Safety

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Sincerely,

/RA/

James M. Trapp, Chief  
Plant Support Branch 1  
Division of Reactor Safety

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M. Pacilio

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Docket No. 50-219  
License No. DPR-16

Enclosure:  
NRC Inspection Report 05000219/2011502

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 05000219

License No.: DPR-16

Report No.: 05000219/2011502

Licensee: Exelon Generation Company, LLC (Exelon)

Facility: Oyster Creek Nuclear Generating Station (Oyster Creek)

Location: Forked River, New Jersey

Dates: September 26 - 29, 2011

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector,  
Division of Reactor Safety (DRS), Region I (Lead)  
S. Lavie, Senior Emergency Preparedness Specialist,  
Nuclear Security and Incident Response (NSIR)  
F. Laughlin, Emergency Preparedness Specialist, NSIR  
J. Kulp, Senior Resident Inspector, Oyster Creek, Region I  
C. Crisden, Emergency Preparedness Inspector, DRS, Region I

Approved by: James M. Trapp, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000219/2011502; 09/26/2011 - 09/29/2011; Oyster Creek Nuclear Generating Station; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by three region-based and two headquarters-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### **Cornerstone: Emergency Preparedness**

#### A. NRC-Identified and Self-Revealing Findings

No findings were identified.

#### B. Licensee-Identified Findings

None.

## REPORT DETAILS

### 1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

#### 1EP1 Exercise Evaluation (71114.01 – 1 Sample)

##### a. Inspection Scope

Prior to the September 27, 2011, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which Exelon had submitted to the NRC, to determine if the exercise would test major elements of the Oyster Creek Emergency Plan as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Exelon's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of Exelon's Oyster Creek emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Technical Support Center (TSC), Emergency Operations Facility (EOF), and the Joint Information Center (JIC).
- A review of other performance areas, such as: the Oyster Creek emergency response organization's (ERO) recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC Oyster Creek EP exercise inspection report and Exelon's Oyster Creek EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the September 27, 2011, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate Exelon's self-assessment of its ERO performance during the September 27, 2011, Oyster Creek exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

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b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04 – 1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, in August 2010, Exelon implemented various revisions of the different sections of the Exelon Oyster Creek Emergency Plan. Exelon had determined that, in accordance with 10 CFR 50.54(q), any change made to the Plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors reviewed all emergency action level (EAL) changes that Exelon had made since August 2010, and conducted a sampling review of other Emergency Plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. Findings

No findings were identified.

4. **OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Oyster Creek EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) ERO Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Oyster Creek was conducted in the third quarter of 2010, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the third calendar quarter of 2010 through the second quarter of 2011, to verify the accuracy of the reported PI data. The review of these performance indicators (PIs) was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 6.

This inspection activity represented the completion of three samples on an annual cycle.



b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On September 29, 2011, the inspectors presented the results of this inspection to Mr. R. Peak, Oyster Creek Plant Manager, and other members of the Exelon staff. No proprietary information was provided to the inspectors during this inspection.

Enclosure

**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

**Licensee Personnel**

M. Chanda, Oyster Creek Emergency Preparedness Manager  
V. Cwietniewicz, Exelon Mid-Atlantic Corporate Emergency Preparedness Manager

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

None

**LIST OF DOCUMENTS REVIEWED**

**Section 1EP1: Exercise Evaluation**

EP-AA-1000, Exelon Nuclear Standardized Emergency Plan (Revision 20)  
EP-AA-1010, Oyster Creek Generating Station Emergency Plan Annex (Revision 3)  
Exelon Nuclear Emergency Plan Implementing Procedures  
Oyster Creek September 27, 2011, Emergency Exercise Scenario Package  
Oyster Creek Emergency Preparedness Drill Reports, January 2010 – August 2011  
Condition Reports generated as a result of the September 27, 2011, Exercise (As documented in Oyster Creek 2011 Graded Exercise Evaluation Report, dated October 26, 2011)

**Section 1EP4: Emergency Action Level and Emergency Plan Changes**

EP-AA-1000, Exelon Nuclear Standardized Emergency Plan (Revision 20)  
EP-AA-1010, Oyster Creek Generating Station Emergency Plan Annex (Revision 3)  
EP-AA-120, Emergency Plan Administration (Revision 13)  
EP- AA-120-1001, 10 CFR 50.54(q) Change Evaluation (Revision 6)  
LS-AA-104, Exelon 50.59 Review Process (Revision 6)

Emergency Plan Change Packages:

10-08; 10-101; 10-103; 10-120; 11-03; 11-11; 11-25; 11-40; 11-45; 11-47; 11-54; 11-61

**Section 4OA1: Performance Indicator Verification**

EP-AA-125-1001, EP Performance Indicator Guidance (Revision 6)  
Alert Notification System PI data, July 2010 – June 2011  
DEP PI data, July 2010 – June 2011  
ERO Drill Participation PI data, July 2010 – June 2011

**LIST OF ACRONYMS**

ANS	Alert Notification System
CR	Condition Report
DEP	Drill and Exercise Performance
EAL	Emergency Action Level
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
JIC	Joint Information Center
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OC	Oyster Creek
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center